

# *Green Growth & Low Carbon Development*

*Copenhagen  
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## Progress on NAMAs in Latin America

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# NAMAs: Countries with proposals

2011

1. *Argentina*
2. *Bolivia*
3. *Brasil*
4. *Colombia*
5. *Costa Rica*
6. *Chile*
7. *Mexico*
8. *Peru*



# Some proposed actions

# Brasil, Chile and Peru

## Voluntary mitigation targets for 2021

### • Zero net emissions in LULUCF sector

Baseline: annual deforestation 150,000 ha (1990-2000) - 53 MT CO2eq;  
Conservation of 54 million Ha of primary forests

### Energy matrix with up to 40% from renewable sources

Mix of efficiency and renewable, including hydropower; biomass; eolic; solar; about 28% reduction as compared to 2000; potential reduction 7 MT CO2eq

### • Reduction of emissions from urban solid waste disposal

Country-wide program; priority in landfills for medium and large cities; potential reduction of 7 MT CO2eq.



Gobierno de Chile

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#### Forestry

- Program for the Sustainable Management and Recovery of Chilean Native Forest
- Forestation Program in Soils Suitable for Forestry and/or Degraded Soils



#### Energy

- Energy Efficiency in Copper Mining
- Electric Motors for Industrial and Mining Use
- Processes in Cement Industry
- Renewable Energy Program
- Geothermal Energy Program



#### Transportation

- Program to Promote a Sustainable Change in Modalities of Transportation
- Program for the Promotion of Low- and Zero-Emission Vehicles
- Program for the Integration of Traffic Management
- Program for Energy Efficiency in Transportation
- Green Zone

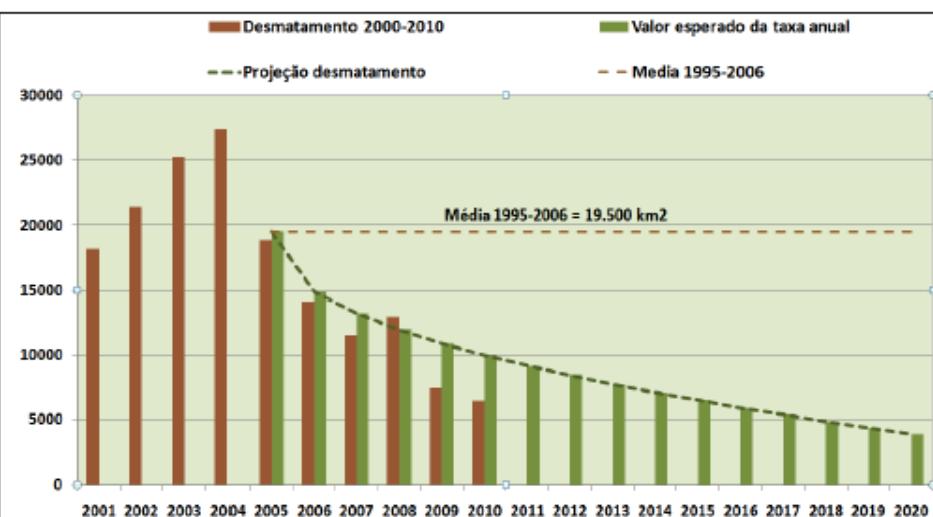


PERÚ Ministerio del Ambiente



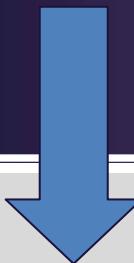
www.mma.gob.pe

## Deforestation in the Amazon (2001 – 2010) and Projected Rate to 2020



# Mexico and Costa Rica

As a first step in this context, our country is currently in the process of identifying the most relevant sectors and concrete policies and measures that would likely be designed as specific NAMA's following agreed guidance and due process. On a preliminary basis, efforts will focus on the following sectors: transport, energy, forestry and waste management. This initial listing of sectors do not preclude the further inclusion of additional sectors or even more specific actions within sectors, as the ongoing process provides more specific data.



## Potential NAMAs for Mexico



### Housing (SEMARNAT-CONAVI/Germany BMU)

- Accelerate penetration of green mortgage package (100% by 2020)
- Upgrade energy efficiency technology package for Green Mortgage

### Transport (SEMARNAT-PROTRAM-CTS/Netherlands)

- Accelerate penetration of Massive Public Clean Transport Systems
- Expand technology spectrum additional to BRTs (electric, hybrid, etc)
- Old units replacement and routes optimization in medium cities

### Cement Industry (SEMARNAT-CANACEM/CCAP)

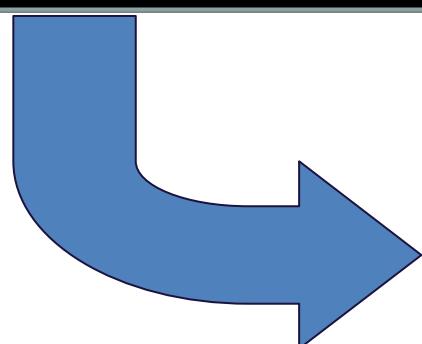
- Increase ashes/pozolan percentage on cement mix
- Increase use of biomass based fuels (WTP sludge)

### Iron and Steel Industry (SEMARNAT-CANACERO/CCAP)

- Energy efficiency measures

## Key mid term goals for 2020 - 2030

| SECTOR           | ACTIONS / POLICY   | IN PLACE                                  |
|------------------|--|---|
| Power Generation | 35 % clean power capacity (include nuclear and large hydro)  | 2024                                      |
| Energy End Use   | 18% Reduction of energy demand (from baseline)<br>•National phase out of incandescent light bulbs (program and standard)<br>•Green mortgage for low income housing | 2030<br>2013<br>Full coverage 2020 – 2030 |
| Oil & Gas        | Gas flaring reduction from 9.8% to 0.6%  | 2009 – 2024                               |
| Forestry         | Net zero emission balance in forestry  | 2020                                      |



Embajada de Costa Rica  
Berlín

- Bolivia's highlight the severity of forest fires which significantly increased its emissions level.
- Millions of Has of forest are destroyed every year.
- LULUCF emissions related to forest fire is the most significant emission source (76% of emissions -SNC).
- There is a need to develop a sustainable plan to control forest fires over the next few years.
- Therefore, the approach towards forest has to be a different one for Bolivia.
- Urgent actions are needed to strengthen emergency plans and actions.

- Forest management: Law No. 26331 establishes rules for the use of land and for the rational and sustainable management of native forest and provides financial support to the provinces to compensate for potential short-term losses; Law No. 26432 promotes investment in new forest enterprises and the enlargement of existing forests.
- Energy efficiency: Decree No. 140/07 created the National Programme for Energy Efficiency, oriented to electricity and natural gas through economic incentives for reducing consumption;
- Law No. 26473 forbids, since 31 December 2010, the commercialization of incandescent light bulbs in the country.
- Renewable energy: Law No. 26190 offers subsidies for electricity generation from renewable energy resources such as wind, solar photovoltaic (PV), mini-hydro, biogas and biomass.
- Biofuels: the National Programme on Biofuels and Law No. 26093, which since January 2010 establishes a minimum share of 5 per cent of bioethanol and biodiesel in the gasoline and diesel oil sold in the country, provide a tax exemption and incremental prices for Biofuel producers.

# Key sectors and actions

## Sector and Actions

- *Conservation of forest and reduction of deforestation with programs in place or programs to be implemented with international support (Argentina, Bolivia, Brasil, Colombia, Costa Rica, Chile, Mexico, Peru).*
- *Energy efficiency programs in key sectors (Argentina, Chile, Mexico).*
- *Increase of renewable participation in energy matrix (Argentina, Chile, Mexico, Perú)*
- *Solid Waste Management (Argentina, Peru)*
- *Reduce fugitive emissions (Mexico).*

## Some Instruments

- *Legal frameworks for Energy Efficiency, Renewable penetration, Biofuels law, Forest Management (Argentina, Chile)*

# Some quantified targets related to BAU

- *Brasil. Up to 1.016 MT CO2eq. By 2021 (36.1%). Reduce deforestation, Energy Efficiency, Biofuels, Steel Industry actions, Hydrogeneration increased,*
- *Colombia: Zero emission from forest activities in 2020; 77% of electricity generation based on Renewable by 2020; 54,8 MT CO2eq through CDM.*
- *Chile: 20% reduction of GHG by 2020*
- *Mexico: 30% reduction by 2020 and 70% reduction by 2050, related to BAU escenario.*
- *Peru: 33% of energy matrix based on Renewable (2020)*

Common driving paradigms for the development of NAMAs: voluntarily submitted; sustainable development as a guiding principle (specially economic growth and poverty eradication); mix of public finance and carbon finance and the need for international support.

# Some challenges

- Scope for NAMAs: REDD and a broader approach for CDM
- Sustainable issues related to actions in Amazon area: social exclusion, poverty, culture, diverse and fragile ecosystems, priorities in national investment.
- Real opportunity costs of forest conservation
- In-country institutional arrangements: structural reforms and the impact on socio-economic system and governance.
- The need of individual, institutional and systemic capacity reinforcement.
- Importance of socio-economic vulnerability: poverty and inequity
- Adequate access to funds for project identification and implementation
- Take into consideration vulnerability on mitigation actions proposals

# A key action: the UNEP-RISOE TNA Project

- *The objective of a “Technology Needs Assessment” is to identify, evaluate and prioritize technological means for both mitigation and adaptation, in order to achieve sustainable development goals.*
- *The main outputs are a technology strategy and action plans to improve the whole system in the country concerned, including overcoming barriers in all parts of the system, as well as insight into the capacity needs in the country concerned for adoption of technologies for low emission and low vulnerability pathways.*

# UNEP-RISOE TNA: LA&C

## Countries

| Countries                 | Sectors            | Sub-sector | Technologies/Actions                            |
|---------------------------|--------------------|------------|---|
| <i>Argentina</i>          | Energy             | Transport  | <b>Energy Efficiency</b>                        |
| <i>Bolivia</i>            | Solid Waste        | Industry   | <b>Solid Waste Methane for Power generation</b> |
| <i>Colombia</i>           | Agriculture        | Building   | <b>Environmental Services</b>                   |
| <i>Costa Rica</i>         | LULUCF             | Energy     | <b>Electric Railways</b>                        |
| <i>Cuba</i>               | Climatic variables | Industry   | Metro bus                                       |
| <i>Ecuador</i>            |                    | Cement     | Bio fuels                                       |
| <i>El Salvador</i>        |                    | Industry   | <b>Renewable for power generation</b>           |
| <i>Guatemala</i>          |                    |            | <b>Cogeneration</b>                             |
| <i>Peru</i>               |                    |            | <b>Efficient Irrigation</b>                     |
| <i>Dominican Republic</i> |                    |            | <b>Energy Plantations/Biomass</b>               |
|                           |                    |            | <b>Railway for Freight transport</b>            |

- Enabling activity to facilitate NAMAs implementation
- Good reception and response from countries involved
- Reinforce Stakeholders participation
- Running First and second phase (2011-2012)

# Final Considerations

- Wide variety of potential actions, confirming that significant mitigation measures are feasible, with the adequate policies and support.
- Look for synergy between Mitigation and Adaptation
- There are Co-benefits associated with mitigation action.
- Need to reinforce Institutional capacity, especially governmental one on public policies.
- Importance of a broader capacity building and other support, including the role of the Financial Mechanism.
- South-South cooperation is desirable and feasible.
- Energy intensity and carbon intensity reduction is a big challenge in countries that still need to satisfy many social needs, reduce poverty and promote industrialization. The inertia of the process is high, structural changes are needed and long term political view should be put in place.

Thank you  
very much



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